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EXAMINER	
CHAWLA, JYOTI	
ART UNIT	**PAPER NUMBER**
1761	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/691,480	KEELER, JOHN	
	Examiner	Art Unit	
	Jyoti Chawla	1761	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *29 June 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *3-5,7,10,12,13,15 and 18* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *3-5, 7,10, 12-13, 15, 18* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Applicant's amendments filed June 29, 2007 have been entered. Claims 3, 5, 7, 10, 12, 15 and 18 have been amended, and claims 1-2, 6, 8-9, 11, 14, 16-17 have been cancelled. Claims 3-5, 7, 10, 12-13, 15 and 18 remain pending in and are examined in the application.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 3-5, 7, and 18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 3-5, 7 and 18 are indefinite for the recitation of "placing a volume of ambient air into said flexible pouch". It is unclear as to what method steps are being utilized to place "a volume of ambient air" in the pouch as the ambient air (i.e., the surrounding air) will be present in the container when the container is open, further after the container is filled (partially or completely), the residual space in the container or pouch will be occupied by the ambient air. If the process is being performed under controlled air pressure, then it is unclear as to how the volume of air is being placed in the flexible pouch, for example, is compressed ambient air being pushed into the pouch, or is a certain volume of air being evacuated from the pouch. Appropriate correction is required.

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

(A) Claims 3-5, 7, 10, 12-13, 15 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Doerter (US 5268189) in view of the combination of Peterson et al (J of Food Protection 8/1997, 60 (8), 928-934 (Abstract), Byrd (US 2546428), Air Liquide Canada (RD 235012 Abstract only) and Sugisawa et al (US 4840805).

Regarding claims 10 and 18, Doerter teaches a process of treating and packaging fresh or cooked shellfish meat, such as crab, shrimp or lobster (Column 1, line 11 and lines 52-65), by providing a packaging container like a pouch (Column 2, lines 38-39); placing a volume of crabmeat into said packaging vessel (Column 2, lines 35-36). Since the surrounding air (ambient air) will enter the package when the package is open, Doerter teaches of placing a volume of air (ambient air) in the packaging container before sealing of the container after packing (Column 3, lines 11-16) and subsequently pasteurizing the sealed container (Column 3, lines 17-25) as instantly claimed.

Regarding the effectiveness of pasteurization, Peterson teaches pasteurization of crabmeat that is packed in oxygen-impermeable flexible pouches (Abstract). Peterson also teaches that pasteurization process extends the shelf life of packaged crabmeat by inactivating spores of clostridium botulinum which are anaerobic bacteria. Peterson further teaches that sealed crabmeat in a pouch should be kept refrigerated in order to maintain the safety of the packaged crab product (Abstract).

Byrd teaches method of keeping shellfish and crustacean meat, such as crabmeat in a fresh condition, without any marked changes in flavor, appearance odor or texture (Column 1, lines 10-19). The reference teaches of packing the crabmeat in containers, which are hermetically sealed and vacuumized (Column 2, lines 39-43). The reference also teaches of reducing the amount of undesirable air space in the package either by vacuuming or by packing tightly (Column 2, lines 44-49). Byrd also teaches of heat-treating the packaged sealed containers in order to raise the internal temperature of mass in the cans reaches between 171 ^{0}F to 210 ^{0}F (Pasteurization temperature range) (Column 3, lines 5-11). The containers of crabmeat as taught by Byrd are cooled and kept refrigerated. Thus the desirability of reduced volume of air in packaged crabmeat was known at the time of the invention as taught by Byrd.

Doerter is silent regarding the prevention of growth of anaerobic bacteria, however, Air Liquide Canada, hereinafter Canada, reference teaches of packaging fish and sea products (i.e., crabs, lobster etc.) under gaseous atmospheres rich in carbon dioxide (60-80% by volume) but containing an amount of oxygen (20-40% by volume) such that the development of strict anaerobic flora is avoided as recited by the applicant in claims 10 and 18. Thus about 20-40% oxygen present in the modified atmosphere is sufficient to avoid the anaerobic bacterial growth as taught by Canada. Since the atmospheric air is about 16-20% oxygen, therefore, atmospheric air (ambient air) present in the package would have enough oxygen (based on the teaching of Canada) to avoid the growth of anaerobic bacteria (e.g., Clostridium botulinum), as instantly claimed.
Regarding claims 5, 7, 10, 15, 18 Doerter and Byrd references teach reducing the air volume from the package of crabmeat. Doerter teaches of reducing air volume by adding a mixture of carrageenan and water before sealing the package, which would create a partial vacuum in the package of crabmeat as recited in claim 5. Byrd teaches of reducing the air volume in the package of crabmeat either by vacuum processing or by tightly packing the crabmeat in the package (Column 2, lines 44-49). Canada teaches that pasteurized crabmeat in the presence of about 20-40% oxygen in the atmosphere of the package will be sufficient to avoid anaerobic bacterial growth. However, the references are silent as to the specific volume of ambient air in the package to obtain the ambient air to crabmeat ratio within the package to about 13-20% (as recited in claims 10 and 18) or about 20% (as recited in claims 15 and 7).
Sugisawa et al, hereinafter Sugisawa, teaches packaging the cooked fish product (seafood) under vacuum (Column 3, lines 7-8), where the volume of air in the package is preferably kept less than 15% of the volume of the entire package, to improve the effect of sterilization and to prevent fish meat from breaking (Column 3, lines 7-16). Thus, Sugisawa teaches of use of partial vacuum in packaging as instantly claimed. Sugisawa teaches that if the total volume of the package is 100, the air volume would be 15, i.e., the seafood (fish) volume taught by Sugisawa would be 85 and the resulting ratio of air to fish is 18% (about 20%) by volume, which would fall in the range recited by the applicant in claims 7, 10, 15 and 18.

It is noted that in the art of packaging meat or fish or shellfish especially crabmeat products it was known at the time of the invention to reduce the amount of air from the package before sealing and heat treating (i.e., sterilizing or pasteurizing) the packaged food for longer and safe shelf life of the food (Doerter, Byrd, Canada and Sugisawa).). Placing a volume of crabmeat or sea product or fish in the vessel was also known in the art (Doerter and Canada). Sealing the package after adjusting the volume of air was also known in the art (Doerter and Canada). Pasteurization as a method of preservation of seafood was known at the time of the invention (Doerter, Peterson and Byrd). It is also noted that oxygen present in the amount of about 20-40% by volume can successfully avoid anaerobic bacterial growth in the packaged seafood (Canada) was known at the time of the invention. Since the atmospheric air is about 16-20% oxygen, therefore, atmospheric air or ambient air present in the package will be able to avoid anaerobic bacterial growth (based on the teachings of Canada). It is further noted that reducing the air volume in the package to about 15% or less of the total package volume (or air to meat ratio of 18% (about 20%) or less by volume), enhances the effect of heat treatment (i.e., sterilization/ pasteurization etc) or preserves the cooked seafood product better (Sugisawa, Column 3, lines 3-34). Therefore, it would have been obvious to one with ordinary skill in the art at the time of the invention to modify Doerter in view of Sugisawa and include 18% of air (by volume) to the packaged shellfish (crabmeat) product, to enhance the effect of the heat treatment (pasteurization or sterilization) and also to prevent deterioration of crabmeat due to breaking. One of ordinary skill in the art would have been motivated to package with air to food ratio of about 20% to have a packaged fish or shellfish product with less bacteriological and physical damage during processing and storage, which is also the intent of the applicant.

Regarding claims 3, 4, 12, and 13 Doerter teaches that the pouch used for packaging shellfish could be made of a high density polyethylene resin (Column 2, lines 42-43), however the reference is silent as to the material of the pouch being a multilayered film. Regarding the nature of the packaging material Sugisawa et al, hereinafter Sugisawa,

teaches bags (container), for packing cooked fish products, that are made from laminates of materials, such as nylon, polyethylene terapthalate (PET), polypropylene or cast polypropylene (CPP), aluminum foil etc., (Column 2, lines 61-68 and Column 3, line 65). Therefore, Sugisawa, teaches a multilayered (laminated) bag for packaging cooked fish etc., comprising PET, nylon, CPP and aluminum as recited by the applicant in claims 3, 4, 12, and 13.

Flexible packages made of high-density polyethylene that can withstand heat treatments have been known in the art for packaging meats including shellfish and crabmeat (Doerter). Laminated multilayered flexible packages that comprise of PET, nylon, aluminum and cast polypropylene (CPP) etc., have also been known in the art for their application in high retort food packaging (Sugisawa). Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Doerter and use a multilayered film package comprising of layers of thermoplastic resin like PET, with nylon, aluminum and CPP to pack the shellfish (crabmeat) package to ensure a strong, heat stable bag or pouch with better elasticity and tear resistance. One would be further motivated to use a food package made with multilayered film as taught by Sugisawa for cooked food such as crabmeat to ensure that the seafood would remain in a better condition after heat stabilization or pasteurization process and transportation/ storage than it does in traditional packages.

(B) Claims 3-5, 7, 10, 12-13, 15 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ueyama et al. (US 2002/0061412) in view of the combination of Peterson et al (J of Food Protection 8/1997, 60 (8), 928-934 (Abstract), Air Liquide Canada (RD 235012 Abstract only) and Sugisawa et al (US 4840805).
Regarding claims 3, 7, 10, 12, 15 and 18, Ueyama et al, hereinafter Ueyama, teaches a heat shrinkable multilayer film (claims 3,12) and packages made using the film for packaging for meats such as crabs, fish and other marine products (Page 5, paragraph 0066) and the product packaged using the multilayer film (Page 7, paragraph 0099 and other examples). Ueyama teaches packaging the desired product in a vessel, such as a

bag or pouch (Page 1, paragraph 0002) (claims 2,11) and placing a volume of the desired product in the packaging vessel and forming a casing; sealing the bag or package (page 7, paragraphs 0094 and 0099); and heat treating or sterilizing said sealed packaging vessel (Page 3, paragraph 0039).

Ueyama does not specify the heat treatment as pasteurization, however, Peterson teaches pasteurization of crabmeat that is packed in oxygen-impermeable flexible pouches (Abstract). Regarding the effectiveness of pasteurization as the heat treatment for packaged meat, Peterson also teaches that pasteurization process extends the shelf life of packaged crabmeat by inactivating spores of clostridium botulinum (anaerobic bacteria). Peterson further teaches that sealed crabmeat in a pouch should be kept refrigerated in order to maintain the safety of the packaged crab product (Abstract). Sterilization and pasteurization are both well-known methods of heat treatment of foods used to control the microbial contamination in foods. Both methods have their advantages. The heat treatment of foods during pasteurization is less intense as compared to heat treatment during sterilization, thus the method is more suitable where exposure to intense heat for a prolonged period (as in sterilization) would result in undesirable, color, texture and flavor changes. The Since pasteurization as a method of preservation of crabmeat was known at the time of the invention (Peterson), therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Ueyama and perform the desired heat treatment (either pasteurization or sterilization) for the crabmeat depending on the storage conditions, length of storage, type of package and other processing conditions.

Ueyama is silent regarding the prevention of growth of anaerobic bacteria as instantly claimed, however, Air Liquide Canada, hereinafter Canada, reference teaches of packaging fish and sea products (i.e., crabs, lobster etc.) under gaseous atmospheres rich in carbon dioxide (60-80% by volume) but containing an amount of oxygen (20-40% by volume) such that the development of strict anaerobic flora is avoided as instantly claimed. It is noted that Canada teaches that pasteurized crabmeat in the presence of about 20-40% oxygen in the atmosphere of the package will be sufficient to avoid anaerobic bacterial growth. Since the atmospheric air is about 16-20% oxygen,

therefore, atmospheric air (ambient air) present in the package would have enough oxygen (based on the teaching of Canada) to avoid the growth of anaerobic bacteria (e.g., Clostridium botulinum), as instantly claimed.

The references are silent as to the specific volume of ambient air in the package to obtain the ambient air to crabmeat ratio within the package to about 13-20% (as recited in claims 10 and 18) or about 20% (as recited in claims 15 and 7).

Sugisawa et al, hereinafter Sugisawa, teaches packaging the cooked fish product (seafood) under vacuum (Column 3, lines 7-8), where the volume of air in the package is preferably kept less than 15% of the volume of the entire package, to improve the effect of sterilization and to prevent fish meat from breaking (Column 3, lines 7-16). Thus, Sugisawa teaches of use of partial vacuum in packaging as instantly claimed. Sugisawa teaches that if the total volume of the package is 100, the air volume would be 15, i.e., the seafood (fish) volume taught by Sugisawa would be 85 and the resulting ratio of air to fish is 18% (about 20%) by volume, which would fall in the range recited by the applicant in claims 7, 10, 15 and 18.

It is noted that in the art of packaging meat or fish or shellfish especially crabmeat products it was known at the time of the invention to reduce the amount of air from the package before sealing and heat treating (i.e., sterilizing or pasteurizing) the packaged food for longer and safe shelf life of the food (Ueyama, Peterson, Canada and Sugisawa). Placing a volume of crabmeat or sea product and sealing the package after adjusting the volume of air was also known in the art (Canada). Pasteurization as a method of preservation of seafood was known at the time of the invention (Peterson and Canada). It is also noted that oxygen present in the amount of about 20-40% by volume can successfully avoid anaerobic bacterial growth in the packaged seafood (Canada) was known at the time of the invention. Since the atmospheric air is about 16-20% oxygen, therefore, atmospheric air or ambient air present in the package will be able to avoid anaerobic bacterial growth (based on the teachings of Canada). It is further noted that reducing the air volume in the package to about 15% or less of the total package volume (or air to meat ratio of 18% (about 20%) or less by volume), enhances the effect of heat treatment (i.e., sterilization/ pasteurization etc) or preserves the cooked seafood

product better (Sugisawa, Column 3, lines 3-34). Since adjusting the volume of air (oxygen) inside a package improves the storage properties of packaged shellfish as taught by Canada and Sugisawa, one of ordinary skill in the art would have been motivated to package the shellfish (crabmeat) in a package made of multilayered film as taught by Ueyama and adjust the volume of air inside the package by creating partial vacuum in order to have air to meat ratio of 18% (about 20%) so that the heat treated (i.e., pasteurized or sterilized) package becomes more shelf stable, i.e., bacterial growth is reduced and since the package has air, anaerobic bacterial growth is prevented. Furthermore, one of ordinary skill in the art would have been motivated to package with air to food ratio of about 20% to have a packaged fish or shellfish product with less bacteriological and physical damage during processing, transportation and storage, which is also the intent of the applicant.

Regarding claims 4 and 13, the multilayered packaging film taught by Ueyama comprises at least one layer of polyethylene terephthalate or PET (Page2, paragraph 0024 and page 3, paragraph 0027); at least one layer of nylon (Page 3, paragraphs 0029, 0032 and 0034), however, the reference is silent as to the use of aluminum and cast polypropylene. Regarding the nature of the packaging material Sugisawa, teaches bags (container), for packing cooked fish products, that are made from laminates of materials, such as nylon, polyethylene terapthalate (PET), polypropylene or cast polypropylene (CPP), aluminum foil etc., (Column 2, lines 61-68 and Column 3, line 65). Therefore, Sugisawa, teaches a multilayered (laminated) bag for packaging cooked fish etc., comprising PET, nylon, CPP and aluminum as recited by the applicant in claims 4 and 13.

Flexible packages made of multilayered films comprising of PET and nylon that can withstand heat treatments have been known in the art for packaging meats including shellfish and crabmeat (Ueyama). Laminated multilayered flexible packages that comprise of PET, nylon, along with aluminum and cast polypropylene (CPP) etc., have also been known in the art for their application in high retort food packaging (Sugisawa). Therefore it would have been obvious to one of ordinary skill in the art at the time of the

invention to modify Ueyama and use a multilayered film package that also comprises of layers of aluminum and CPP along with the thermoplastic resin like PET and flexible nylon to pack the shellfish (crabmeat) package to ensure a stronger and more heat stable bag or pouch with better elasticity and tear resistance. One would be further motivated to use a food package made with multilayered films as taught by Ueyama and Sugisawa for cooked food such as crabmeat to ensure that the seafood would remain in a better condition after heat stabilization or pasteurization process and also during transportation/ storage.

(C) Claims 3-5, 7, 10, 12-13, 15 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lett et al (GB2343611A), in view of the combination of Peterson et al (J of Food Protection 8/1997, 60 (8), 928-934 (Abstract), Air Liquide Canada (RD 235012 Abstract only), Doerter (US 5268189) and Sugisawa (US 4840805).

Lett et al, hereinafter Lett teaches of packaging crabmeat in a flexible bags or vessels made from a 170 micron PA-PE having a tubular bottom and the bags are laminated and heat resistant up to a 190^{0}C. Crabs are pasteurized and then cooled or chilled and then stored in a chilled container maintained between 0-4^{0}C (Page 4).

Regarding the effectiveness of pasteurization in preventing the anaerobic bacterial growth, Peterson teaches pasteurization of crabmeat that is packed in oxygen-impermeable flexible pouches (Abstract). Peterson also teaches that pasteurization process extends the shelf life of packaged crabmeat by inactivating spores of clostridium botulinum (anaerobic bacteria). Peterson further teaches that sealed crabmeat in a pouch should be kept refrigerated in order to maintain the safety of the packaged crab product (Abstract).

Lett is silent regarding the prevention of growth of anaerobic bacteria as instantly claimed, however, Canada, reference teaches of packaging fish and sea products (i.e., crabs, lobster etc.) under gaseous atmospheres rich in carbon dioxide (60-80% by volume) but containing an amount of oxygen (20-40% by volume) such that the

development of strict anaerobic flora is avoided as instantly claimed. It is noted that Canada teaches that pasteurized crabmeat in the presence of about 20-40% oxygen in the atmosphere of the package will be sufficient to avoid anaerobic bacterial growth. Since the atmospheric air is about 16-20% oxygen, therefore, atmospheric air (ambient air) present in the package would have enough oxygen (based on the teaching of Canada) to avoid the growth of anaerobic bacteria (e.g., Clostridium botulinum), as instantly claimed.

Regarding adjusting the volume of air in the package, Doerter teaches a process of treating and packaging fresh or cooked shellfish meat, such as crab, shrimp or lobster (Column 1, line 11and lines 52-65), by providing a packaging container like a pouch (Column 2, lines 38-39); placing a volume of crabmeat into said packaging vessel (Column 2, lines 35-36). Doerter teaches the addition of a mixture of carrageenan and water to the container containing the shellfish (crabmeat) to effectively remove air from the package (Column 3, lines 6-10), thus adjusting the volume of air within said packaging vessel. Doerter teaches sealing of the container after packing (Column 3, lines 11-16) and subsequently sterilizing or pasteurizing the sealed container (Column 3, lines 17-25) as recited by the applicant in claims 1 and 10.
Doerter adjusts the volume of air by removing the air from the package by the addition of carrageenan and water. Doerter does not vacuum all the air out there is a small volume of air that is left in the package before it is sealed, which would create partial vacuum and the package would contain some air to prevent the growth of undetected anaerobic bacteria as recited by the applicant in claims 1 and 10.

Thus the references teach of adjusting the volume in the package, for example, Canada teaches of partial vacuum and adjusting the volume of air such that the anaerobic bacterial growth is avoided (Abstract) and Doerter teaches adjusting the volume of air from the package by adding a mixture of carrageenan and water before sealing the package, however the references are silent as to the specific volume of ambient air in the package to obtain the ambient air to crabmeat ratio within the package to about 13-20% (as recited in claims 10 and 18) or about 20% (as recited in claims 15 and 7). Sugisawa teaches packaging the cooked fish product under vacuum

(Column 3, lines 7-8), where the volume of air in the package is preferably kept to 15% of the total package volume, to improve the effect of sterilization and to prevent fish meat from breaking (Column 3, lines 7-16). Thus, Sugisawa teaches partial vacuum in the package where if the total volume of the package is 100, the air volume will be 15. Therefore, the preferable fish volume taught by Sugisawa will be 85 and the resulting ratio of air to fish/meat will be 18% (i.e., about 20%) by volume, as instantly claimed by the applicant in claims 7, 10, 15 and 18.

It is noted that packaging of fish, crabmeat or other seafood in flexible packages was known in the art at the time of the invention (Lett, Peterson and Canada). Placing a volume of crabmeat or sea product or fish in the vessel was also known in the art (Lett, Canada and Doerter) (claims 10 and 18). Adjusting the amount of air or gas in the package of sea products in such a way as to avoid the development of anaerobic bacteria was also known in the art (Canada). Reduction in the amount of air from the package before sealing it for longer and safe shelf life of the food (Doerter, Canada and Sugisawa). Sealing the package after adjusting the volume of air was also known in the art (Lett, Canada and Doerter) (claims 10 and 18). Heat treatment of the cooked and packaged sea products by pasteurization was also known in the art at the time of the invention (Lett and Peterson). Further it was also known that reducing the air volume in the package to about 15% or less (or air to meat ratio of about 18% or less by volume) enhances the effect of heat treatment (pasteurization or sterilization) or preserves the cooked fish product better (Sugisawa, Column 3, lines 3-34). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to further modify Lett in view of the combination of references and include 18-20% of air (by volume) to the packaged shellfish (crabmeat) product, to enhance the effect of the heat treatment (pasteurization or sterilization) and also to prevent deterioration of crabmeat due to breaking. One of ordinary skill in the art would have been motivated to package with air to food ratio of 18-20% to have a packaged fish or shellfish product with less bacteriological and physical damage during processing and storage and also have a

package that has some air cushion so that the food does not get damaged during storage and transport.

Regarding claims 3, 4, 12, and 13 Lett teaches that the pouch or bag for packaging crabmeat are made from a 170 micron PA-PE having a tubular bottom and the bags are laminated and heat resistant up to a 190C. Doerter teaches of bags that are made of a high-density polyethylene resin (Column 2, lines 42-43). Thus the references teach of laminated or multilayered bags or pouches, however the references do not teach of the multilayered film of the package as recited in claims 4 and 13. Therefore one of ordinary skill in the art at the time of the invention would have been motivated to look to the art for a multilayered flexible package or vessel for packing shellfish or crabmeat.
Regarding the nature of the packaging material Sugisawa et al, hereinafter Sugisawa, teaches bags (container), for packing cooked fish products, that are made from laminates of materials, such as nylon, polyethylene terapthalate (PET), polypropylene or cast polypropylene (CPP), aluminum foil etc., (Column 2, lines 61-68 and Column 3, line 65). Therefore, Sugisawa, teaches a multilayered (laminated) bag for packaging cooked fish etc., comprising PET, nylon, CPP and aluminum as recited by the applicant in claims 3, 4, 12, and 13.
Flexible packages made of high-density polyethylene that can withstand heat treatments have been known in the art for packaging meats including shellfish and crabmeat (Lett and Doerter). Laminated multilayered flexible packages that comprise of PET, nylon, aluminum and cast polypropylene (CPP) etc., have also been known in the art for their application in high retort food packaging (Sugisawa). Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Lett reference and use a multilayered film bag or vessel or package comprising of layers of thermoplastic resin like PET, with nylon, aluminum and CPP to pack the shellfish (crabmeat) package to ensure a strong, heat stable bag or pouch with better elasticity and tear resistance. One would be further motivated to use a food package made with multilayered film as taught by Sugisawa for cooked food such as crabmeat to ensure

that the seafood would remain in a better condition after heat stabilization or pasteurization process and transportation/ storage than it does in traditional packages.

(D) Claims 3-5, 7, 10, 12-13, 15 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Walker et al (US3852486) in view of the combination of Ueyama et al. (US 2002/0061412) and Sugisawa et al (US 4840805).
The references and rejection are incorporated herein and as cited in the previous office action mailed May 8, 2007.
Regarding the amendments to the claims, Walker in view of Ueyama and Sugisawa teaches pasteurization of shellfish meat in order to inhibit the growth of clostridium botulinum, which is an anaerobic bacterium. The references also teach of the limitations of packaging the shellfish meat (i.e., crab) in a flexible pouch where the ratio of meat to air is about 20% by volume as instantly claimed. Please refer to the previous office action mailed May 8, 2007 for more details.

(E) Rejection of claims 10 and 18 rejected under 35 U.S.C. 103(a) as being unpatentable over Bealle et al (WO 9003737A)(Abstract only) has been withdrawn in light of applicant's amendments.

Response to Arguments

Applicant's arguments filed June 29, 2007, have been fully considered but are moot in view of new grounds of rejections.
Applicant's arguments regarding the 112 (second) rejections have been considered and responded above.
Applicant's arguments related to the references in the rejections have been fully considered and have not been found persuasive.
I) In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208

USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

i) Applicant arguments that the method as taught by Doerter (Remarks, page 7) and Lett (Remarks, pages 8-9) are not the same as the claimed method, however, the method as recited by applicant is a method "comprising the steps of...". It is also noted that Doerter and Lett respectively are being applied in obviousness rejections along with other references to teach of the limitations in the instantly claimed invention. Thus, as comprising is not a closed ended process, and the process can include other steps, therefore, applicant's invention is obvious over the combination of references including Doerter and Lett as discussed in the office action above.

ii) Applicant's arguments regarding Canada (Remarks, page 9) reference have been considered and have not been found persuasive as Canada reference has also been relied upon as evidence that about 20-40% oxygen by volume in the atmosphere present in a package of meat/seafood is sufficient to avoid anaerobic bacterial growth. The other reference, Sugisawa teaches of packing fish with a volume of air and since air typically contains about 16-20% oxygen, it would have been obvious to one of ordinary skill at the time of the invention that fish or other meat/seafood packaged in air would have enough oxygen to avoid the growth of anaerobic bacteria, such as, Clostridium botulinum, which is also the intent of the applicant.

iii) Applicant's arguments regarding Peterson (Remarks, page 9) have also not been found persuasive as Peterson is relied upon in an obviousness rejection to provide evidence that pasteurization of crabmeat packed in flexible pouches was known at the time of the invention. The reference has also been relied upon to show support that pasteurization of crabmeat was effective in retarding the growth of the anaerobic bacteria even in an anaerobic atmosphere, i.e., in the absence of oxygen. Based on the teaching of Peterson, it would be obvious to one of ordinary skill at the time of the invention that pasteurized meat/seafood packaged in air (comprising oxygen) will be

able to retard the growth of anaerobic bacteria to a greater extent than as taught by Peterson.

II) In response to applicant's argument that Sugisawa and Canada (Remarks, pages 8-9) are nonanalogous art (i.e., the references teach of fish and not of crabmeat), it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, Sugisawa and Canada both teach of packaging fish or fresh sea products, which is meat/fish/seafood and falls in the same field of endeavor as that of the instantly claimed invention of packaging crabmeat (seafood).

III) In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., packaging cost and natural product (Remarks, page 9, lines 21-24) and foodstuff having high water content) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Applicant's arguments related to the references in the rejections have been fully considered and have not been found persuasive and the rejections of claims 3-5, 7, 10, 12-13, 15 and 18 are maintained for the reasons of record.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jyoti Chawla whose telephone number is (571) 272-8212. The examiner can normally be reached on 8:00 am to 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Keith Hendricks can be reached on (571) 272-1401. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Jyoti Chawla
Examiner
Art Unit 17617

KEITH HENDRICKS
PRIMARY EXAMINER